DOCUMENT RESUME

ED 399 537 CS 215 446

AUTHOR Raef, Catherine M.
TITLE Improving Student Writing Skills through the Use of Technology.
PUB DATE Apr 96
NOTE 66p.; M.A. Project, St. Xavier University.
PUB TYPE Dissertations/Theses - Undetermined (040) -- Reports - Descriptive (141)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Computer Assisted Instruction; Computers; Elementary Education; *Student Motivation; Whole Language Approach; *Writing Improvement; *Writing Instruction; *Writing Laboratories; *Writing Skills
IDENTIFIERS Technology Integration

ABSTRACT

This report describes a program for the advancement of student writing skills. The targeted population consisted of elementary school students in a growing middle class community, located in a suburb of a large Midwestern city. The problem of low writing scores was documented in student writing samples, teaching observations, and scores from the Standard Achievement Test. Analysis of probable cause data revealed that students lacked quality models for writing; had limited background knowledge; received academic instruction with one emphasis; and lacked motivation to write. Faculty reported a weakness in students' writing skills. Reviews of curricula content and instructional strategies revealed an over emphasis on skilled subjects; a failure to incorporate whole language approaches; and a tendency for instruction to have only one emphasis. A review of solution strategies suggested by knowledgeable others, combined with an analysis of the problem setting, resulted in the selection of two major categories of intervention: the establishment of a Writer's Workshop in the classroom, and the incorporation of technology into the classroom to enhance the writing curriculum. Post-intervention data indicated an increase in student writing skills. Students' motivation to write increased as demonstrated by their observable behavior and documented work in the classroom setting. (Contains 18 references and 17 appendixes of research material, including 10 figures of data and student portfolio samples.) (Author/TB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 399 537

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

C Raef

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

IMPROVING STUDENT WRITING SKILLS THROUGH THE USE OF TECHNOLOGY

by

* Catherine M. Raef

Submitted in partial fulfillment of the requirements for the degree of Master's of Arts in Teaching and Leadership

Saint Xavier University & IRI/Skylight

Field-Based Master's Program

Action Research Project
Site: Elk Grove, Illinois
Submitted: April 1996

*Teacher
Mark Twain Elementary
Wheeling, Illinois

CS215446

BEST COPY AVAILABLE

SIGNATURE PAGE

This project was approved by

Peter Blottner MA MAT
Advisor

Mary Ellen Schneider MEd
Advisor

Terry Stirling, Ph.D.
Dean, School of Education

Abstract

Author: Catherine M. Raef Site: Elk Grove Village

Date: April 1996

Title: Improving Student Writing Skills through the Use of Technology

This report describes a program for advancement of students' writing skills. The targeted population consisted of elementary school students in a growing, middle class community, located in a suburb of a large Midwestern city. The problem of low writing scores was documented in student writing samples, teacher observations, and scores from the Stanford Achievement Test.

Analysis of probable cause data revealed that students lacked quality models for writing, had limited background knowledge, received academic instruction with one emphasis, and lacked motivation to write. Faculty reported a weakness in students' writing skills. Reviews of curricula content and instructional strategies revealed an over emphasis on skilled subjects, not merging the focus of literacy into whole language, and instruction with one emphasis.

A review of solution strategies suggested by knowledgeable others, combined with an analysis of the problem setting, resulted in the selection of two major categories of intervention: the establishment of a Writer's Workshop in the classroom, and the incorporation of technology into the classroom to enhance the writing curriculum.

Post intervention data indicated an increase in student writing skills. Students' motivation to write increased as demonstrated by their observable behavior and documented work in the classroom setting.

TABLE OF CONTENTS

Abstract i

Chapter

1 Problem Statement and Context 1

General Statement and Context 1

Immediate Problem Context 1

Surrounding Community 3

Regional and National Contexts of Problem 5

2 Problem Definition 7

Problem Evidence 7

Probable Causes of Problem 16

3 The Solution Strategy 19

Review of the Literature 19

Project Outcomes and Solution Components 23

Action Plan 24

Methods of Assessment 26

4 Evaluation of Results and Processes 27

Historical Description of Intervention 27

Presentation and Analysis of Results 32

Conclusions and Recommendations 41

References Cited 45

Appendices

Appendix A- Student Writing Prompt..... 47

Appendix B- Teacher Observation Checklist 48

Appendix C- Illinois Goal Assessment Program Guidelines 49

Appendix D- Data for Figure 1 50

Appendix E- Data for Figure 2 50

Appendix F- Data for Figure 3 50

Appendix G- Data for Figure 4 51

Appendix H- Data for Figure 5 51

Appendix I- Student Writing Survey 52

Appendix J- Student Portfolio Sample 53

Appendix K- Student Portfolio Sample 54

Appendix L- Student Portfolio Sample 55

Appendix M- Student Portfolio Sample 56

Appendix N- Data for Figure 6 58

Appendix O- Data for Figure 7 58

Appendix P- Data for Figure 8 58

Appendix Q- Data for Figure 9 59

Appendix R - Data for Figure 10 59

Chapter 1

STATEMENT OF PROBLEM AND DESCRIPTION OF CONTEXT

Problem Statement

The students at the targeted elementary school exhibit inadequately developed writing skills. Evidence for the existence of the problem includes student writing samples, teacher observations, Stanford Achievement Test scores, and student surveys.

The Immediate Problem Context

This project will take place at a medium- sized elementary school housing grades K-6. The school is located in a Midwestern suburb of a large city. The total school population is 585. Fifty percent of the student population is White. The second largest ethnic/racial background is represented by Hispanics at 41.2 percent. The remainder of the student population is comprised of 1.5 percent Blacks, 7 percent Asian/Pacific Islanders and 0.2 percent Native American (The State School Report Card, 1994).

Low-Income families comprise 20.3 percent of the student population. Low-Income students are those from families receiving public aid, living in institutions for neglected or delinquent children, being supported in foster homes with public funds, or eligible to receive free or reduced-price lunches. Eleven and eight tenths percent of the student population is Limited-English-Proficient. Limited-English-Proficient students are those who have been found eligible for bilingual education classes.

The school attendance is 94.6 percent. The student mobility is 14.2 percent. The school does not have a problem with chronic truancy (The State School Report Card, 1994).

The staff of this school includes: one principal, 24 kindergarten through sixth grade teachers, five of those being bilingual teachers, two special education teachers including an assistant, one library media specialist and an assistant, one physical education teacher, one Chapter One reading specialist, one part-time speech therapist, one part-time and one full-time social worker, one full-time instructional technology specialist, one art instructor and one music instructor. Auxiliary personnel include: one secretary, one full-time health aide, one part-time nurse and three custodians. There is a part-time psychologist and a part-time bilingual psychologist available upon request.

The Chapter One reading specialist services 36 students and the special education resource teachers service 34 children. The speech therapist has a caseload of 30 students.

The school has three self-contained classrooms at each grade level in the school except for the sixth grade which has two classes. Additionally, the school has bilingual education programs: three first grade, one second grade, and one first/second grade bilingual class. The school also houses the Physical Health Impaired program for the surrounding area however, this program is run independently of the district.

The school has a computer lab containing 30 Macintosh computers. Additional technology is available to students and teachers in the Library Media Center which contains five Macintosh computers, two laser discs, a video camcorder, four video cassette recorders, and two modems to access

telecommunication programs. Each classroom has a minimum of one computer and teachers can also utilize two computers which travel throughout the school.

The Surrounding Community

The school is located in a Midwestern suburban community covering 8.5 square miles. The total population is 29, 911. Ninety point one percent of the population is White, 4.6 percent is Asian or Pacific Islander, 1.8 percent of the population is Native American, 1.68 percent of the population is Black, and 3.4 percent of the community population is defined in a separate category. Males comprise 48.85 percent of the population and females comprise 51.15 percent of the population. The number of households in the community is 12, 495. The median household income is $39, 848. The community has four public elementary schools and one junior high school which are part of a large elementary community consolidated district (1990 census of Population and Housing).

The school is located within a large district located approximately 35 miles northwest of a metropolitan area. The district encompasses four suburban towns which consolidated into one district with nine elementary schools, grades K-6, and two junior high schools, grades 7-8. There are 6,621 students enrolled in the district who feed into two high schools.

The racial/ethnic background for the district is 73.6 percent White, 2.7 percent Black, 16.8 percent Hispanic, 6.9 percent Asian/Pacific Islander, and 0.1 percent Native American. The percentage of students from Low-Income families in the district is 12.2. Students in the district with Limited-English-Proficiency is 10.8 percent. The percentage in the district for attendance is 95.3, mobility 10.2, and chronic truancy is 0.1. Average class size for the district in

kindergarten is 21.2, first grade is 22.3, third grade is 21.4, and sixth grade is 22.0.

The teachers in the district are 97.6 percent White, 2.1 percent Hispanic and, 0.3 percent Asian/Pacific Islander. Twelve percent of the teachers are male and 88.0 percent are female. The average number of years teaching experience is 15.0 years. Thirty five point six percent of the teachers hold Bachelor's Degrees and 64.4 percent hold Master's Degrees and above. The Pupil-Teacher Ratio is 19.6:1, the Pupil-Administrator Ratio is 281.0: 1. The average teacher salary is $45, 800. The average administrator salary is $75, 710. Operating expenditure is $5, 937 per pupil.

The district participates in the Illinois Goal Assessment Program (IGAP) which assesses students in grades 3-8 in reading, writing, mathematics or science and social studies for a particular grade level. The disciplines tested vary depending on the grade level.

All of the schools in the district participate in the Illinois School Improvement Plan. For the 1994-95 school year, the district targeted five areas for planned improvement. Special target one: decrease the number of students "not meeting" state standards in the area of mathematics and reading. Special target two: increase the number of students "exceeding" state standards in the area of mathematics and reading. Special target three: increase student utilization of technology resources in the school setting. Special target four: increase student appreciation and respect for self and others (through increased involvement in multi-cultural, awareness-building, and service-oriented building programs and activities). Special target area five: increase home-school communications and partnerships.

This district uses a literature-based reading program published by Houghton Mifflin, and the University of Chicago Math Program which is hands-on math. Grades four through six visit the district's Discovery Science Center for a total of eighteen hours of hands-on science education. The primary grade levels receive bimonthly science kits which allow them to do the hands-on science program in their own classrooms. Fine arts instruction is provided by teachers specializing in these areas through music education and art education programs. Computer technology instruction is provided by instructional technology specialists. The district services identified gifted students through a pull-out program.

The district is committed to bringing more instructional technology to each school. Five million dollars has been allocated for this project. Within a five year period, the district is updating the schools' Apple computer labs to Macintosh labs, equipping every classroom with a technology workstation, and providing technology education for faculty.

This district is currently undergoing significant changes. These changes include moving the sixth grade out of the elementary schools into the junior high schools, and opening an additional junior high. The junior high schools are transforming into middle schools. The administration is developing a middle school curriculum. The bilingual program will change from grade level centers to students attending their home schools. This may create multi-age classrooms.

Regional and National Context of Problem

There is a widespread problem with declining writing abilities among students. The current levels of student achievement in language fell short of the standard implied by the national education goal (Office of Educational Research

and Improvement 1991). The problem is not only seen in the community that has been described, but is a problem that has been addressed in research from various parts of the country (Gunlach, 1987).

It is believed that this problem is because children are not seeing the connection between reading and writing (Barnhart, 1993). Classroom teachers need to create an environment based on children's interest and experience that can help them develop into lifelong readers and writers. "In its simplest terms, language across the curriculum argues that English is naturally interdisciplinary, that language is generally best learned when it is "about something else whether the content be history, science, math, or one's personal experiences," (Tchudi, 1991).

Additionally, there is a failure to establish a relationship between children's personal lives and experiences to their reading and writing. This is reflected in children's desire to write, ability to write, comprehension skills in reading, and their overall vocabulary.

Chapter 2

PROBLEM EVIDENCE AND PROBABLE CAUSE

Problem Evidence

The students in the Enrichment Opportunities Program (EOP) at the targeted school exhibited underdeveloped writing abilities as shown through teacher observations, writing samples scored by IGAP standards, Stanford Achievement Test scores, and student writing surveys.

A prompt to write an expository writing piece was provided (Appendix A). The students had a fifty minute time block to plan, organize, write, and revise their paper. This prompt was assessed in two ways, by the Teacher Observation Checklist (Appendix B) and the Illinois Goal Assessment Program (IGAP) guidelines (Appendix C).

The Teacher Observation Checklist included fourteen skills grouped into three categories: Surface Features, Inner Layers, and Creativity. Surface Features assesses the surface convention of the writing piece. Inner Layers assesses how logically and how well developed the ideas are presented. The checklist or rubric is not number-based or letter-based because it is being used to assess, not grade, a piece of writing. It aides in identifying where the students are developmentally. Each student is identified as either an emerging writer, a developing writer, or an experienced writer. The emerging writer would receive a notation on the rubric indicating the writer has not yet attained the skill. The developing writer would receive a notation indicating that there is

evidence of the skill, yet it is not fully understood or applied correctly. The student writer may apply the skill occasionally but not consistently. The experienced writer receives marks which indicate the student has mastered the skill. The skill is present throughout the piece. As the observation checklist is applied the observer should consider the student-author's abilities and approaches to writing.

The results of the checklist showed that students as a whole were strongest in the area of Surface Layers. Four of the seven students performed at a mastery level when applying writing principles of spelling, capitalization, and punctuation. Two of the seven showed evidence of the skill. One out of the seven demonstrated the Surface Layer skills are not yet attained.

Student performance in the area of Inner Layers varied from high to low levels. Two of the seven students performed at a level of mastery writing. However, the remaining majority performed at the developing level. Specifically, all seven of the students used proper sentence structure throughout their expository writing pieces. Five out of the seven students presented ideas in a logical order. Six out of the seven showed evidence of self-editing. The group varied on the remaining four categories in the Inner Layers area with three students performing at the lowest emerging writer level, two performing at the developing level, and two performing at the mastery level.

The third area of the rubric, Creativity, was the weakest part for six out of seven of the students. This area evaluates how well the writer utilizes features of more sophisticated writing. Students who frequently use "empty words" such as "cool", "nice", "things", and "very" would score lower than a student utilizing a more advanced vocabulary. The same principle holds true for the category of "well chosen verbs". Student writers using the word, "said" to indicate speech in

an essay would score lower than a student writer using verbs such as "stated", "exclaimed" , or "replied." In this area, six students performed at a level of the emerging writer therefore indicating the skill has not yet been attained. One of the seven students performed at a mastery level in this area as she did in the other two areas of the rubric.

The writing samples were also scored by IGAP standards as a second mean of determining students' writing ability. This scale is designed to give a descriptive profile of a student's command of fundamental techniques of clear writing. The assessment also produces a focused, holistic score of Integration which reflects how well the composition as a whole accomplished the assignment. Similar to the Teacher Observation Checklist used, this rating system emphasizes stages of development and considers the performance expectations of the student.

The IGAP method of scoring was developed to summarize the key features of a piece of writing. Students are assessed by five features of writing: Focus, Support, Organization, Conventions, and Integration. Within each feature specific writing skills are assessed. Focus determines the clarity with which a paper presents and maintains a clear main idea, point of view, theme, or unifying event. Support focuses on the quality of details, reasons, and the explanation of the theme. The thoroughness of elaboration depends upon balanced descriptions of the key components of the paper. Organization scores the plan of development and whether or not the key points and sentences logically flow together. Conventions scores the use of standard written English. This includes sentence construction, spelling, punctuation, capitalization, and paragraph format. Integration is a focused global judgment of how well the paper achieves the task (Illinois State Board of Education, 1994).

Each feature except for Conventions is rated on a six point scale for state assessment. The number indicates the level of development in the piece. In general, the scores may be interpreted as follows: A score ranging from one to three indicates the feature is absent or in the developing stages. A score ranging from four to six signals the feature is basically or well developed. Conventions are rated with either a one or a two. One indicates that a paper has major errors and is equivalent to scoring in a one to three range in all other areas. Two indicates a paper has minor errors or no errors, this is equivalent to a four to six range in the other areas. Each feature is rated independently with the exception of the Integration score which is graded holistically. An overall score is given to each paper. The overall score is calculated by the following formula:

Overall score = 2x (Integration) + (Focus) + (Support) + (Organization) + (Conventions)

Therefore, the overall score ranges from six to thirty two (Illinois State Board of Education, 1994). The students' scores place them in one of four categories. Their skills are either: absent, developing, developed, or fully developed. Similar to the Teacher Observation Checklist, it is important that the scorer consider the performance expectations of a student at a particular grade level.

The students' writing samples scored by IGAP standards revealed four of the seven students are operating at a developing level on four of five of the key writing features. The remaining students scored at levels varying from developed to fully developed depending on the category of skill. Students who have achieved in the fully developed category still have the potential for growth within this category because they have scored a five and the top score is a six. None of the students were operating at a fully developed level across the board of key features.

Figure 1 Appendix D, demonstrated the first feature, Focus. This score determined three of the seven students were operating at a level of a fully developed writer. They stated a subject and a position on that subject and effectively maintained the position throughout. They did not receive the top score within the fully developed category because although they could announce a position and maintain it, they were generally weak on their closing

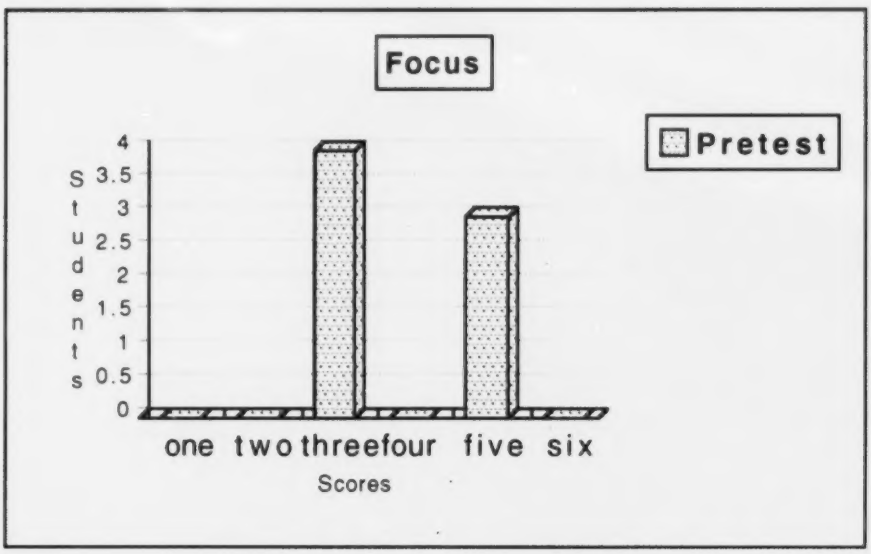


Figure 1. Pretest scores for Focus. Appendix D.

paragraphs. The remaining four students were operating at a developing level. They stated a clear subject, however, they were not able to identify or unify any support for their subject. The areas of support which they did identify may not have been carried out when they later developed their paragraphs.

Scores for Support, Figure 2 Appendix E, showed that two students have fully developed support, one student had developed support, and four of seven were developing in the area of support. This indicated all students have made

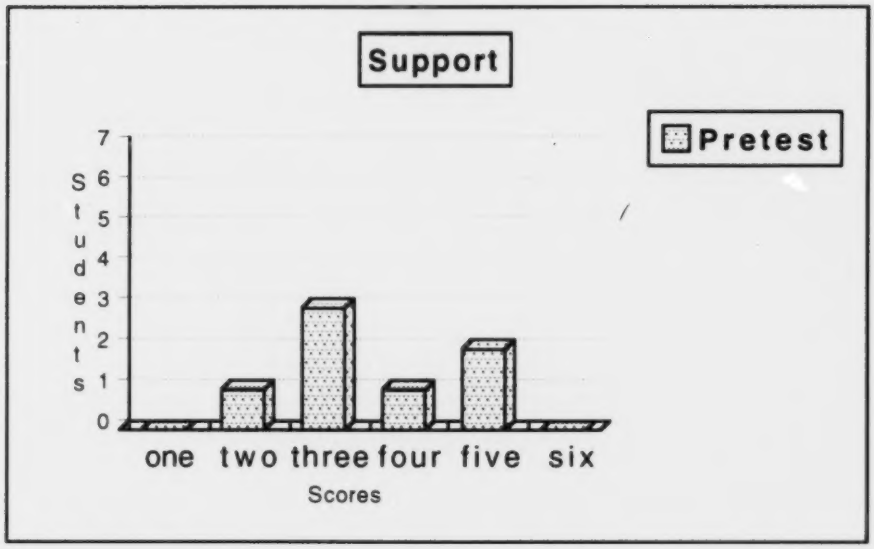


Figure 2. Pretest scores for Support. Appendix E.

an attempt to support their subject and were aware that support was necessary to writing. However, their ability to support their subject varied. They may have some paragraphs with supporting details well developed while other paragraphs lacked sufficient information.

The results on Organization were similar. As Figure 3 Appendix F demonstrated, one student fully developed organization, two students developed some organization, and four students are developing organization. Similar to the Support component, this indicated students' awareness that organization is necessary. In each writing sample an organized plan can be

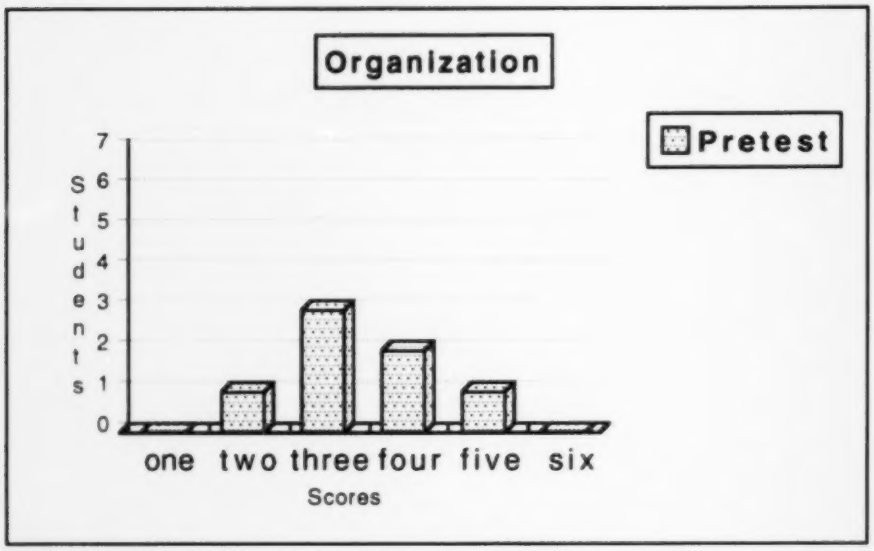


Figure 3. Pretest scores for Organization. Appendix F.

inferred. An organized plan would incorporate the supporting details into paragraphs. They generally realize paragraphs are set apart with transition words. Although each student had a plan, the degree of success with sustaining the plan throughout the paper varied among the students.

The collective group of students was most successful in the area of Conventions. Students who have a few minor errors and no more than one or two major errors are classified as developed or fully developed. These students receive a score of a two. Students who have several minor errors as well as many major errors are classified as developing or absent writers and receive a score of a one. As shown in Figure 4 Appendix G, six of the seven students performed at the level of developed or fully developed. One student

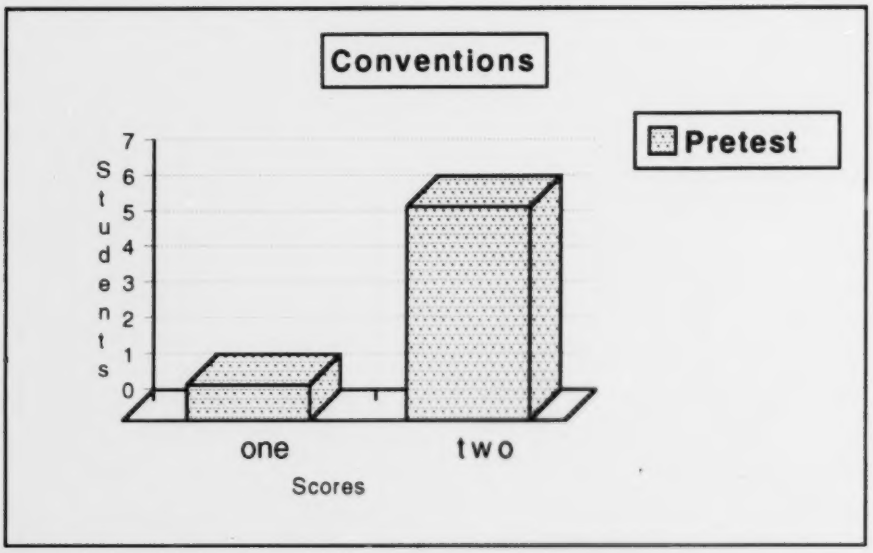


Figure 4. Pretest scores for Conventions. Appendix G.

performed at a developing level. The student scoring at the developing level had several spelling errors of common words and some capitalization errors. The scores clearly indicated that the students have a solid understanding of the use of conventions in standard English. Most errors made were minor such as a spelling mistake and did not impact the reader's understanding of the piece.

The final feature assessed, Integration, evaluates the paper based on a global judgment of how the paper as a whole addressed the writing task. As shown in Figure 5 Appendix H, none of the students are fully developed, three of the seven are developed, and the remaining four are developing. This score seems to be the most critical score for it takes into account the writer's strengths and weaknesses to determine the holistic quality of the writing piece. The three

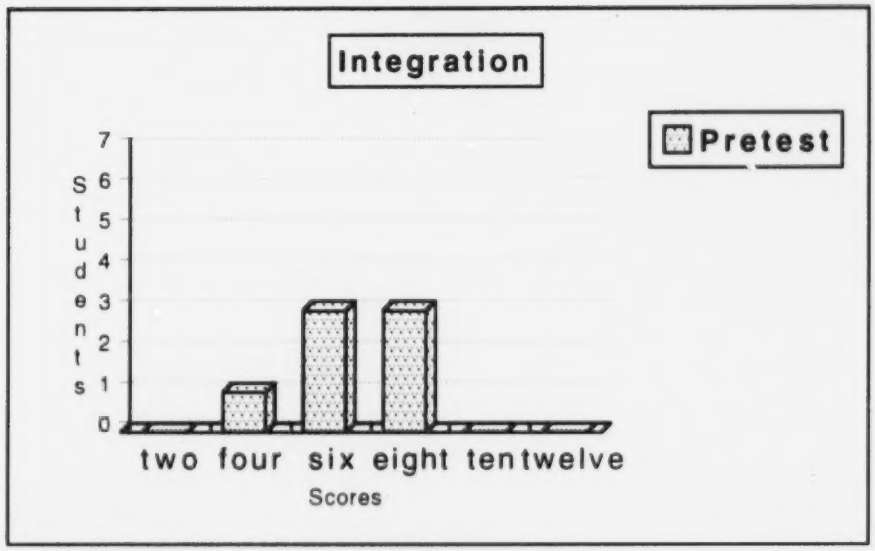


Figure 5. Pretest scores for Integration. Appendix H.

students receiving scores labeling them as developed writers have written a paper which does address the writing task. But the students have not developed all features equally or effectively. The four students receiving developing scores have written papers which are generally clear and informative but consist mainly of the essential components.

The Stanford Achievement Test assesses students in language arts and reading. The students receive scores on language arts which identify their skill in using writing components such as sentence structure and punctuation. However not all the student scores were available in their cumulative folders. Perhaps this is attributed to the high mobility rate of students in this district.

The Student Writing Survey (Appendix I) suggested that students have a framework of knowledge on what good writing is and how to produce good

writing. Additionally, an overall positive attitude toward writing was sensed. Two key questions in the Student Writing Survey, were question four, "What do you think a good writer needs to do in order to write well?", and question six, "In general, how do you feel about what you write?"

The responses to question four identified students' knowledge of the importance of the writing process, content and mechanics, and creativity when writing. None of the students cited all three elements of "good writing" but each student did identify at least one of the elements. Four out of the seven students specifically stated that to write well an author needs to have a good imagination and be creative. The remaining three students replied that mechanics or organization are the basis of quality writing. This indicated that the students do have a basic knowledge of the writing process. It appears as though they have had some exposure to quality writing, and identify creativity and clearly written text as components of good writing.

The significance of question six, "In general, how do you feel about what you write?" is that it showed students' confidence in their ability to write. In response to question six on the survey, all seven thought they were good writers. Three explained that they enjoyed writing the most when they were able to choose their own topic.

Probable Causes

In reviewing the data, it is evident the seven students identified for the EOP program, are not writing at a level expected in an enrichment program. Their skills are not adequately developed. Students may be facing one or more of the probable causes including: lack of modeling of writing, lack of background knowledge, instruction with one emphasis, and lack of motivation.

People learn well when taught through demonstration. Learning to write is one such act. Students with fewer exposures to literacy have a more difficult time reading and writing. Children who have seen few demonstrations of writing in their homes have had even fewer conversations about writing. Naturally, children with little history of home or school writing experiences will require the most focused teaching, the opportunities to see writing demonstrated, and to actually experiment with writing themselves (Allington, 1994). Students coming from an environment where literacy is reinforced, have a natural interest in learning to read and write. According to Johngsma (1990), "The roots of lifelong literacy are planted within the family and cultivated by the child's early exposure to books and to reading models." Modeling at school is equally important. Teachers who model writing often have the most success with teaching writing.

Background knowledge is another important link to literacy. The child who has visited museums, traveled, and participated in many events will have a larger base knowledge to draw upon than the child who does not have that background knowledge. According to Britsch (1993):

> Everyday activities are fertile ground for developing literacy. Young children use oral language as a tool to solve problems and figure out intricacies of new experiences. As they grow, children's first writings rise from their experiences. Language helps give shape to the relationship children are forming with their universe. The process of language development -both oral and written- is one in which children begin to organize language itself into patterns they can use to give meaning to their experiences.

Instruction with one emphasis is another probable cause to be considered. Writing instruction is commonly taught in isolation of other subjects. It is a separate class where students are taught rules of language such as capitalization, punctuation, or paragraphing. This isolated setting does not provide a situation where students can apply writing to "real-world" situations. They do not see the connection between writing and reading processes. Children who are successful at becoming literate view reading and writing as authentic activities from which they get information and pleasure and by which they communicate with others. The literature-rich classroom communicates the importance of real reading and writing activities by engaging children in a variety of print activities and not relegating reading and writing to a brief period (Allington,1993).

Literature suggests that students' attitude toward writing is another probable cause for their unsatisfactory performance. Some students will say they don't like to write, others show that they don't like to write through the stories they produce. Calkins (1986) says, "The bitter irony is that we, in schools, set up roadblocks to stifle the natural and enduring reasons for writing, and then we complain that our students don't want to write." Calkins suggests that students will be motivated to write when they are writing about topics important to them, thereby making writing personal and interpersonal.

Probable causes gathered from the literature and from the site include: lack of modeling of writing, lack of background knowledge, instruction with one emphasis, and lack of motivation. All of these factors contribute to the inadequate writing skills and will be taken into account when the action plan is derived and implemented.

Chapter 3

THE SOLUTION STRATEGY

Review of the Literature

As stated in Chapter 1, interest in students' writing ability is widespread. There has also been a great interest in writing instruction recently that has provided us many major studies on how children develop as writers (Calkins, 1986). Many states are devising state tests to assess students' writing skills, specifically Illinois has implemented the Illinois Goal Achievement Program. With this interest in writing there has been a shift in focus from product based instruction in writing to process based instruction. It is evident that while conducting the literature review, that the way teachers view emergent literacy is changing. The components which develop a successful literacy program and how those components relate to one another has changed as well.

Students' understanding of procedures used to engage in writing can affect the writing they do, including the amount of writing they do. Process writing is an approach to teaching writing that allows students to take charge of their own writing and learning. As each of the five steps are introduced to students they must be modeled, guided, and supported by the teacher until the students take charge of their own writing (Cooper, 1994). The five steps are pre-writing or planning, drafting, revising, editing, and publishing. As students learn this process they grow into writers and come to think of themselves as authors.

Frequently, the five step process is established into a Writer's Workshop in the classroom. The Writer's Workshop approach furthers the students understanding of the writing process. A student who understands the instructional procedures in Writer's Workshop has more potential for taking advantage of the time and support offered (Rhodes, 1993).

Although the five step writing process is the scaffold for writing, research has shown that each individual has a composing process which may slightly deviate from the five steps. Every person has strategies for composing and rhythms of work that are drawn upon whenever one has to write. Therefore, teachers can best assist writers when they observe them writing and discover what works best for that individual writer. The discovery that individuals have a composing process led to the recognition that all writers follow a process of craft when they work, much as researchers follow the scientific method (Calkins, 1986).

When teachers understand the writing process they can help their students understand, invent, and adapt effective writing strategies. It is critical that teachers acknowledge this process. The basic elements of pre-writing, drafting, revising, editing, and publishing should all be a part of writing. However, students may not always follow them sequentially (Routman, 1991). Students may meander back and forth through the steps allowing the writing or what they think they want to say, lead them. Flexibility in writing process as well as large blocks of time are important in writing.

When students are subject to modeling at home and at school, they get a better sense of the need for writing. As Graves (1994), noted revolutionary of the writing process, says,

> We need to show children why writing matters in our lives, and how we draw writing ideas from everyday events. I call this "reading the world." I demonstrate how writing is connected to wonder. I show how I choose details. In doing so, I begin to answer that toughest question for the child. "Why would anyone want to write?"

Parent and teacher demonstrations that they are writers themselves, are an extremely powerful means for communicating the importance of writing to children.

Children learn to read and write by reading and writing. Therefore, reading and writing are the actual modes or forms of instruction through which the skills of reading and writing develop. The students gain the skills through application. Researchers have verified the importance of extended writing as the major way in which students develop their ability to use grammar and learn to spell. Independent writing helps to make literacy an exciting process in multiple ways. It is important because while writing they are thinking, explaining their knowledge base, and activating prior knowledge. When they are critical readers of their writing they learn to self-edit which leads to improvement of their writing skills (Cooper, 1993).

When students are writing it is important that writing is not taught in isolation. It should not be a separate class. Writing should be done regularly in all subject areas as a response to reading and other activities related to their learning. The writing may be "quick writes" which take the form of creating questions to an article about whales the students just read or creating summaries of science material they have just learned. Other composing activities may be more extensive and involve sustained writing, revision, and publishing (Allington, 1994). Regardless of the extent of the writing activity,

what is important is that they are doing authentic writing activities. As a result they see the importance of writing as an activity in which they communicate effectively with others.

A major part of helping children become effective writers is keeping them motivated and excited about their learning. Motivation may come from within the students themselves or be fostered by the teacher, other students, or their experiences. Motivation is not created by a single activity that the teacher conducts. Rather it is created and sustained by several factors inherent in a classroom learning environment which produces students who are interested in learning to read and write. Within this environment, students take ownership for their learning and come to feel that they have the right to chose what they learn and to manage their learning in cooperation with the teacher and their peers (Cooper, 1993).

All teachers have had their "bag of tricks" which are meant to motivate writing. Teacher-led activities may stimulate writing but they do not help students become personally involved in their writing. Intrinsic motivation will happen when writing is personal and interpersonal. The teacher's job is to acknowledge that each student comes to class with ideas, concerns, memories, and feelings. Students need to have freedom to write about what is important to them. Calkins believes that all humans have a primal urger to write, a teacher needs to be skilled to tap into that urge. That urge can be tapped into if teachers help students realize that their lives are worth writing about and if teachers help students chose their topics, their genre, and their audience (Calkins, 1986).

Students have many ideas to express. Their minds may generate ideas quickly but their hands cannot keep up with their eyes and minds. They grow

impatient with the slowness of writing, and they resist revising, editing, and recopying (Furnish, 1988). This resistance to key steps of the writing process reduces students' motivation to write. Computers offer a way for students to get their ideas on paper and revise more easily. Teachers and researchers observe that students at this age write more and stay with writing tasks longer when using computers (Vockell, 1987). Students normally conscious of their poor handwriting skills are able to publish a final piece of writing which looks more professional. However, it is important to keep perspective and acknowledge that just because a piece of writing was done on a computer does not ensure it was done well. The expectation needs to be that whether the students are composing using pencil and paper or by word processing, the writing process must be followed. Although the first draft may look neat on the computer, it needs to be revised and edited as would any other piece of writing (Routman, 1991).

This literature review covered strategies which transform students into writers. When teachers recognize individuals' writing processes, provide skill and strategy instruction in writing, arrange regular times for authentic writing, and allow technology as a tool for writing, students gain confidence in themselves and their abilities to write.

Project Outcomes and Solution Components

While reviewing the literature, it became evident that the experts in the area of reading and writing agree on several key points in the development of students' reading and writing skills. The most successful reading and writing programs are implemented through a Reader's or Writer's Workshop approach. Such an approach encompasses many of the solution components discovered in the literature review. Therefore the following action plan will be implemented:

As a result of incorporating technology into the writing process during the period of September 5, 1995 through April 4, 1996, the students in the fifth grade Enrichment Opportunities Program at the targeted elementary school will improve their writing skills as measured by writing samples scored by a rubric and a teacher checklist.

In order for the terminal objective to be accomplished, the following process objectives are necessary:

1. A Writer's Workshop approach to writing will be implemented providing students a sustained amount of time to write two or three times a week.
2. As a result of Writer's Workshop, students will understand how writers utilize the five step writing process to produce effective pieces of writing.
3. Students will have choice in topic when writing during Writer's Workshop.
4. Technology will be utilized in all stages of the writing process. The implementation of the technology will be gradual.
5. The classroom environment will be literature rich and a place where reading and writing is valued.

Action Plan

While reviewing the literature, it became evident that teaching the writing process is key to building students' writing skills. A Writer's Workshop incorporates many of the critical components of a successful writing program in class. It allows for choices in topic, writing across the curriculum, process writing, modeling, authentic writing experiences, and utilization of technology. The implementation of process writing through a Writer's Workshop program will begin on September 5, 1995 and conclude April 4, 1996.

On a weekly basis the implementation will take the following form. There will be two to three fifty minute blocks of time for writing instruction. The following routine used follows the Calkins (1986) Writer's Workshop format. Within the time frame the same routine will be followed at each meeting time:

- A mini-lesson lasting five to ten minutes dealing with anything from topic choice, editing, how to incorporate a piece of technology, to revision. The mini-lesson topic is determined by the needs the class is exhibiting at a certain time.
- Status of the class is taken. Each student provides an oral statement about what will be worked on for that day. It is a verbal work agreement which also helps focus the child before getting to work.
- After the first five minutes of focus time, then the students can conference, work collaboratively, or write independently. This time lasts for about 25 minutes.
- The last five to ten minutes are set aside for sharing time. Students volunteer to share what they have written thus far. They are given feedback from their teachers and peers.
- Students clean up and return their folder to the proper place.

Students may access their writing projects during time in their homeroom classes provided their homeroom teacher gives them permission, otherwise

they will be limited to the time they are pulled out of the regular classroom for enrichment. They also may come down occasionally during a recess time. The teacher circulates around the room during Writer's Workshop. The teacher must monitor students' progress, conference, manage technical problems, and manage the classroom.

Methods of Assessment

Teacher observations, student surveys, and writing projects scored using a writing checklist and an IGAP rubric will be used to assess the effectiveness of the project. Their writing pieces will be evaluated by tools of assessment used in the beginning of the project. Students will be asked to complete the same survey they did the first week of the project implementation. Answers will be compared and evaluated for understanding of the writing process as well as student attitudes toward writing.

Chapter 4

EVALUATION OF RESULTS AND PROCESSES

Historical Description of Intervention

The intervention implemented September 5, 1995 through April 4, 1996 was targeted at the writing skills of a group of students in the Enrichment Opportunities Program (EOP) at the targeted elementary school.

The intervention was a combination of instruction on process writing in the form of a Writer's Workshop and instruction on utilizing technology throughout the stages of the writing process. The intervention was implemented as stated in Chapter 3 except for a few alterations.

The students were a part of an enrichment program which pulls them out of their homeroom class to receive enrichment in the area of language arts. Therefore the researcher had to coordinate the schedules of three homeroom teachers as well as her own to schedule two times per week when the students would meet on a permanent basis to participate in the program. The third time they met each week was spent with their entire homeroom class as part of Computer Writing Class.

The times were established. However, almost immediately scheduling conflicts began. Students would miss partial or full sessions for reasons such as taking tests in the homeroom class or participating in the required Drug and Alcohol Resistance Education Program (DARE). Such instances became more

and more regular throughout the first months of the intervention. This was problematic for two reasons. First of all, the students would be absent for the mini-lesson of the day. Although brief in format, the mini-lesson of the day provided important information on a targeted writing or technology skill meant to improve writing. Second, students would not have the time to work on their writing pieces. This was a major concern to the researcher because having large chunks of writing time two or three times a week is a critical component of Writer's Workshop. Students' enthusiasm for working on their writing was such that they would frequently ask to write during their lunch recess. This helped make up for some of the lost class time.

Initially, students had a complete choice of topic when writing. One of the first mini-lessons dealt with "Choosing a Topic". Each student brainstormed a comprehensive list of writing topics which were of high interest. They chose from this list for the first two or three writing pieces. After two months, the researcher felt the students would benefit from having a real audience read their work. Formally publishing their work and presenting it to a group of peers is another important component of Writer's Workshop. Therefore, the class participated in The Student Writing Exchange on America Online.

The Student Writing Exchange is a telecommunications project which requires the students to write on a particular topic then submit their writing to a peer class to which they have been matched. The writing topic was "Thanks a Lot". The students had to write about something in their life for which they were thankful. Although more limited than the usual Writer's Workshop, this assignment still offered a wide range of topics. The writing format could be a fable, a play, a newscast, a rap, a song, or an essay. The researcher noted that the students wrote in a variety of formats on a variety of subjects. Once the

students completed their writing and sent them to the partner class, they waited in high anticipation for the e-mail from the peer class.

The second part of the process was critiquing the essays from the partner class. Critiques were made in the form of a friendly letter. This activity was valuable because it brought a letter writing component into the Writer's Workshop. It was also valuable for the students because it gave them the opportunity to note the writing skills of other fifth grade students across the country. After receiving the e-mailed writing from the peer class, the students compared their writing to the peer class's writing. The students thought their skills excelled those skills of the peer class. They felt their papers were more creative and better written. The researcher had to discuss with them the point of the critique. That being, the objective of the critique was not to compare their work to their peers' work but to evaluate a particular piece on both its strengths and weaknesses. The Student Writing Exchange ended with the "Thanks a Lot" project. The researcher felt it unfortunate that the two classes did not keep corresponding through America Online, but the time necessary to do so was not available.

As the months passed by, the researcher felt the students were definitely benefiting from the Writer's Workshop. The students were eager to work on their writing. They would arrive at class and immediately follow the routine of Writer's Workshop. They would gather their folders and computer diskettes and get straight to work. The students were rarely off task. The technology component of the action plan was extremely successful for a variety of reasons. For one, the students were motivated by the technology. They were able to choose from the following software programs: *ClarisWorks* published by Claris Corporation, *The Bilingual Writing Center* published by the Learning Company, *Inspiration*

published by Inspiration Software Inc., *Storybook Weaver* published by MECC or *HyperStudio* published by Roger Wagner. Depending on the nature of the assignment , certain programs were more appropriate than others. For example, one student chose to write about "clothes" and used *ClarisWorks* to word process her five paragraph essay. However, when she began writing a piece about a vacation she took, she chose to use *Storybook Weaver* which has a significant amount of graphics and scenery options which clearly added to the word processed portion of the piece.

All of the students did at least one project on *HyperStudio*. They did a creative writing piece in a "Create Your Own Adventure" format. The project required them to choose a natural setting such as the Amazon Rainforest, or the Appalachian Mountains, then create a goal for the characters in the adventure. Along the way the characters encountered obstacles. To survive the obstacles they made choices. The choices they made had both positive and negative consequences. All aspects of the setting, the obstacles, and the consequences had to be within the realms of possibility. Therefore, students had to conduct preliminary research. Technology assisted in their research. They referenced CD-ROMs such as *Grolier's Multimedia Encyclopedia* by Grolier, and *The Rainforest* by REMedia to find out information. Conducting the research, creating the story, then transferring the story on *HyperStudio*, as a multimedia writing project, was time consuming. However, the finished products were wonderful and the students were extremely proud of themselves. They wanted to share their Create Your Own Adventure stacks with their family and friends. Due to the nature of the *HyperStudio* program, products are not printed out on paper. To share the *HyperStudio* stacks, the researcher transferred the stacks to video tape. The students were then able to share the stacks.

In January, the students compiled a portfolio of their writing from the first semester. Samples of the students' work can be seen in Appendices J, K, L, and M. They chose which pieces of writing went into their portfolio. The guideline was "Students will choose pieces of writing which show growth in their writing skills. The writing may be from school or writing done on personal time." The writing could be from any stage of the writing process such as a pre-writing web, or a final draft. They also created an "About the Author" page describing themselves. The students were excited about the portfolios and shared them with classmates and parents.

While attending a staff development program in January, the researcher discovered how the software application *HyperStudio* can be used as an electronic portfolio for student work. Excited about the possibility of using this with the Writer's Workshop students, she discussed the program with her principal. As a result, the students showcased their second semester writing in this electronic format. This deviation from the original action plan was a great experience for several reasons. This format was desirable for it utilized the many technology skills the students had acquired during the past several months of Writer's Workshop. They applied their technology skills of using the scanner, Apple Quicktake camera, and *HyperStudio*. The electronic portfolio allowed for the students to record their reflections about their work into the computer. In some cases the students were able to link the portfolio to the actual computer applications in which the students originally created the pieces. Again, their motivation for the activity was extremely high. They were impressed with the professional looking quality of the portfolios. The final step was transferring the portfolio to video tape. The students received a permanent copy of the electronic portfolio in this video tape format.

Presentation and Analysis of Results

Teacher observations, writing samples scored by IGAP standards, and student surveys were used to evaluate the effectiveness of the project.

The students were given the same writing prompt (Appendix A) they used for the pretest. The students had a fifty minute time block to plan, organize, compose, and revise their paper. The prompt was assessed in two ways, by the Teacher Observation Checklist (Appendix B) and the Illinois Goal Assessment Program (IGAP) guidelines (Appendix C).

As stated in Chapter 2, the Teacher Observation Checklist included fourteen skills grouped into three categories: Surface Features, Inner Layers, and Creativity. Surface Features assesses the surface conventions of the writing piece. Inner Layers assesses how logically and how well developed the ideas are presented. The checklist or rubric is not number-based or letter-based because it is being used to assess, not grade, a piece of writing. It aided in identifying where the students are developmentally: an emerging writer, a developing writer, or an experienced writer. The emerging writer would receive a notation on the rubric indicating the writer has not yet attained the skill. The developing writer would receive a notation indicating that there is evidence of the skill, yet it is not fully understood or applied correctly. The experienced writer receives marks which indicate the student has mastered the skill. The skill is present throughout the piece. As the observation checklist was applied the observer considered the student-author's abilities and approaches to writing.

The results of the checklist indicated the students showed growth in each of the three general areas: the Surface Layers, Inner Layers, and Creativity.

Within each of those areas, there are specific skills defined. The improvement on specific skills varied.

The posttest observation checklist showed that the area of Surface Layers continued to be the strongest area for the group as a whole. Initially most students did well, but those who had not performed at a mastery level have improved over the course of the intervention and are now performing at the mastery level. All seven of the students are performing at a mastery level for capitalization and punctuation. Therefore, the three students who had previously exhibited evidence of the skill have now developed the skill to mastery level. Six of the seven performed at the mastery level for spelling.

The second layer of the checklist was the Inner Layers. Previously, the students' abilities had ranged from low to high levels. That gap has been decreased. The posttest indicated that four of the seven students are operating at the mastery level. Three of the seven are writing at the developing level. Therefore all students formerly regarded as emerging writers have improved. Specifically, all seven of the students have mastered presenting their ideas in a logical order, using proper sentence structure, and carrying out the main ideas throughout the piece. All seven students showed evidence of self-editing skills at either the developing or mastery level. The most problematic area for students within the Inner Layer is the closing paragraph. Six showed evidence of the skill but did not have fully developed closing paragraphs. One student mastered developing a closing paragraph.

The final area of the rubric was Creativity. Before the intervention, six of the seven students performed at the level of an emerging writer therefore indicating the skills had yet to be attained. One had performed at a mastery level. The posttest proved all students had grown in the areas identified in the

Creativity portion of the rubric. Specifically, three students mastered the task of using more "well chosen verbs". Four of the seven mastered the task of using "well chosen verbs" in their writing pieces. Overall the students used less "empty words" such as "things, good, cool". Even though they decreased their use of "empty words", the majority of them are still at the developing level in this category. Use of transition words proved to be the weakest point for the students. Three of the seven have mastered using transition words. Two of the seven demonstrated evidence of the skill. The remaining two students have not attained the skill. However when asked to list some transition words, they were able to instantly do so. Therefore indicating their knowledge of transition words but a failure to incorporate them in a paper.

As stated in Chapter 2, the samples were also scored using the IGAP scoring scale. This scale was designed to give a descriptive profile of a student's command of fundamental techniques of clear writing. The assessment also produces a focused, holistic score of Integration which reflects how well the composition as a whole accomplished the assignment. Similar to the Teacher Observation Checklist used, this rating system emphasizes stages of development and considers the performance expectations of the student.

The student writing samples scored by IGAP standards revealed a significant improvement for the students in each of the five areas scored. The students are all operating at a developed or fully developed level in each category. This demonstrates substantial progress over the past several months because at the onset of the intervention four students were writing at the developing level.

In Figure 6 Appendix N, the first feature Focus, determined five students are functioning as fully developed writers. Two of the five progressed from the developed category. The other three remained at this level at which they had initially started. These students were able to effectively state a subject and

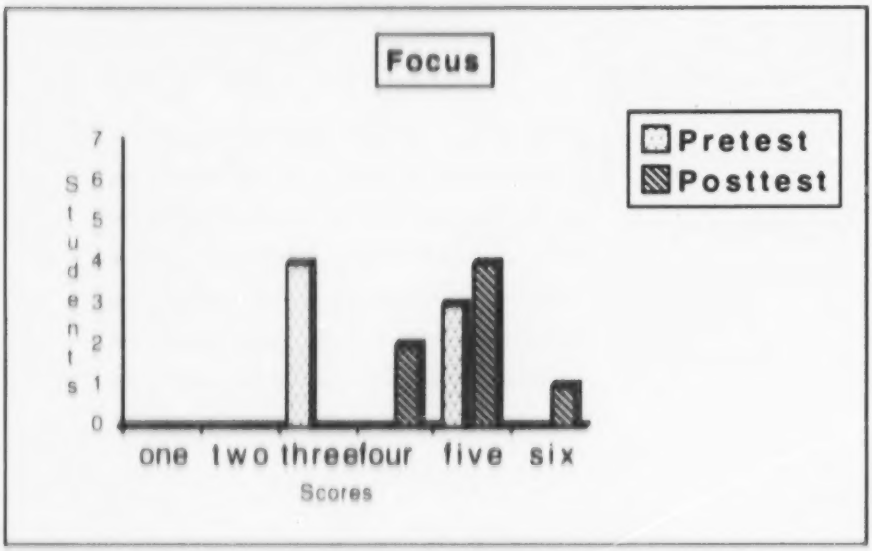


Figure 6. Pretest and posttest scores for Focus. Appendix N.

position in the opening paragraph then maintain the position throughout the piece. The remaining two students moved from the developing category to the developed category. These students stated a clear subject however, were not as successful with unifying the support for their position.

Posttest scores for Support showed that four students are performing at the fully developed level. (Figure 7 Appendix O) This is an increase of two times the original number. The students who were originally at the fully developed level, did not increase to the top score within the fully developed

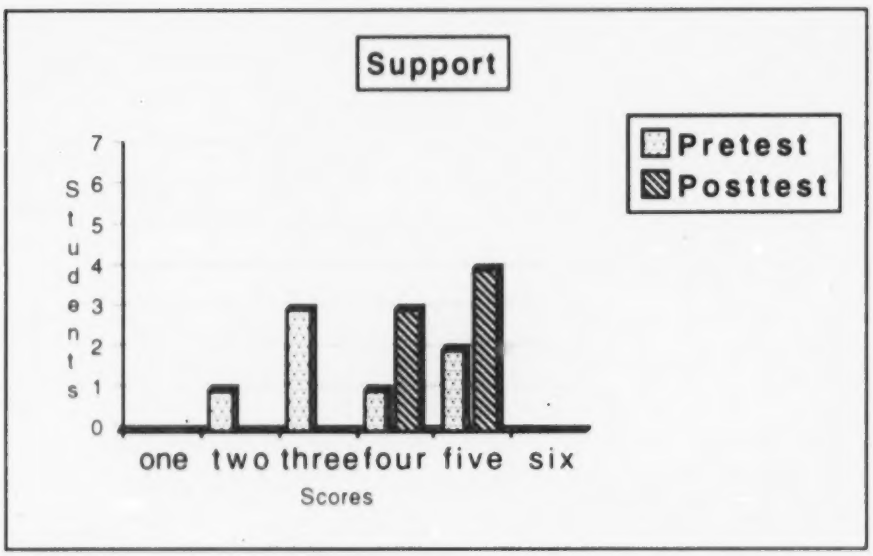


Figure 7. Pretest and posttest scores for Support. Appendix O.

category. Three students are writing at the developed level. Thus all students involved in the intervention who were previously at a developing level, have increased their scores. This indicated all students can support their subject and they know support is a necessary factor to quality writing. However, the degree to which they offer support still varies.

As Figure 8 Appendix P, demonstrated, three students are fully developed in the area of Organization. Therefore, two students have progressed into this category from their earlier developed status. The three students scored a five which places them in the fully developed category yet they do have the potential to move higher within the category. The highest possible score in the fully developed category is a six, therefore they could

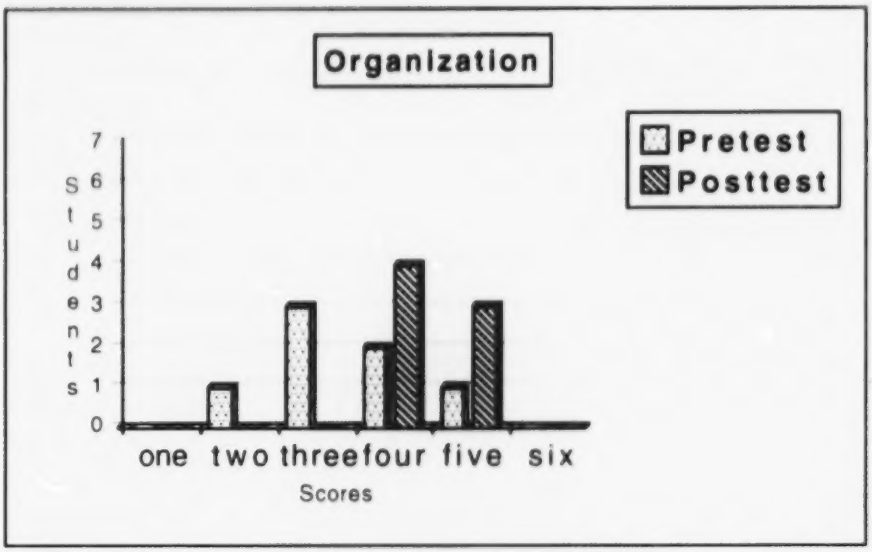


Figure 8. Pretest and posttest scores for Organization. Appendix P.

strive to master within this category from their current score of five to a six. The remaining four students who were originally developing organizational skills have now progressed to the developed stage. Overall the students showed tremendous improvement allowing them to move to the next level on the IGAP scoring system. All of the students demonstrated their awareness that organization is necessary and they have organized their paper to varying degrees.

In the pretest, Conventions was the strongest area for the group. This remains the same. The students' use of Conventions is evaluated by the degree of grammar and mechanical mistakes in their essays. Errors are classified as either minor or major errors. Depending on the number of minor or major errors students receive a plus or a minus. Those students receiving a

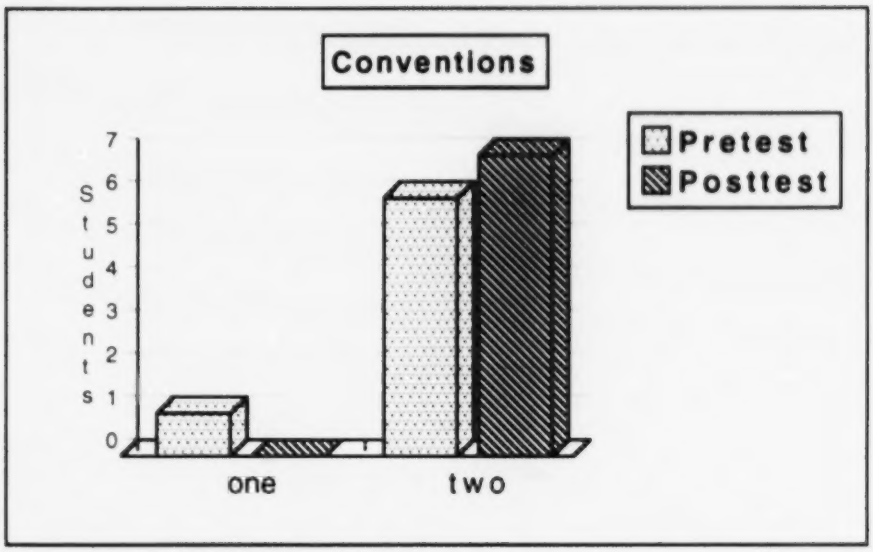


Figure 9. Pretest and posttest scores for Conventions. Appendix Q.

plus, score a two for Conventions. Those students receiving a minus, score a one for Conventions. As shown in Figure 9 Appendix Q, all students are operating at the fully developed level. Therefore, the one student previously not fully developed has increased while the other students maintained their ability in this area. All students have a thorough understanding of how to apply the conventions of standard English in writing.

Figure 10 Appendix R, displayed the results of the final feature assessed by IGAP scoring, Integration. The evaluator considers the holistic value of paper. This global judgment considers how well the writer addressed the writing task and how well the paper was written mechanically and grammatically. The results showed that five out of the seven students are operating at a fully developed level. This is quite an increase from the pretest when none of the seven were operating at a fully developed level. However,

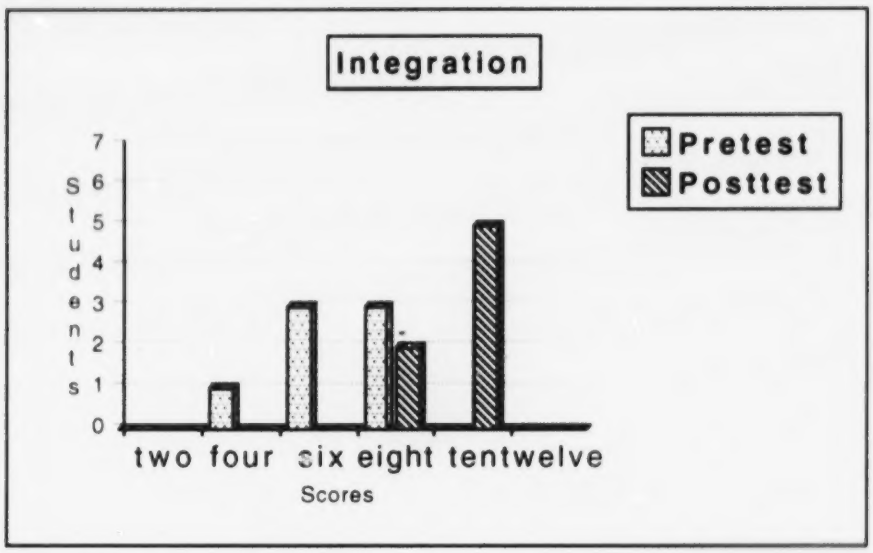


Figure 10. Pretest and posttest scores for Integration. Appendix R.

none of the students received the top score within the fully developed category, but, they did increase their performance significantly. As in the area of Focus, they have moved to the fully developed category and have the potential to move within the category by scoring from a five to a six. When doubling that score, as is done for Focus they then receive a ten or a twelve. The remaining two students are functioning at the developed level which is an increase from their previous performance level of developing.

The last measurement tool was the Student Writing Survey (Appendix I). The writing survey was given to students again. The writing survey reflects their perceptions of themselves as writers. It also provides insight on students' perceptions of what defines a "good writer." As was sensed in the pre-intervention survey, students have a positive attitude toward writing. However,

the responses this time indicated a greater understanding of the components of quality writing and a greater awareness of their personal writing performance.

Question three asked, "Why do people write?". This question was significant for it showed their understanding of the many purposes for writing. Between the seven students they had a well rounded answer. Their responses included people write for pleasure, to express their feelings and thoughts, for others to enjoy, and for their jobs.

The response to question four, "What do you think a good writer needs to do in order to write well?", identified students' knowledge of the importance of the writing process, content and mechanics, and creativity when writing. Students' answers to this question were more extensive than those in the previous survey. They cited practice as an important factor. Another major area was knowledge of topic. Four students expressed the importance of writers having knowledge of their topic through personal experiences or research. The remaining responses focused on specific content and writing mechanics such as stating main idea and providing support for details.

The students' responses to question six, "In general, how do you feel about what you write?", showed all students have pride in their writing. The students feel their writing is good but express the need for constant improvement so that it can be "great". They are open to suggestions on how to improve their writing. Two students are aware of their weakness with spelling and punctuation but believe their ideas have strength. In the previous writing survey several students mentioned the value of freedom in choosing a topic. None mentioned that this time. Their responses indicated a higher awareness of the quality of their writing.

Conclusions and Recommendations

Although it is a time demanding implementation, it has been effective. The students have enjoyed writing this year. Both components of the intervention, the Writer's Workshop and the technology had aspects which were very successful.

In the Writer's Workshop, topic choice was important. The students did best and were most interested in writing when they had complete freedom of topic. The few times when they were given topics they had more difficulty getting started on a piece and generally the writing was not as detailed.

Portfolios were a second important component. The portfolio was a tangible collection displaying their performance and growth in writing. Sharing their portfolios in both the paper and electronic formats was an exciting event for the students. They exhibited pride in their writing. By reading and critiquing other students' writing they became more critical readers and writers.

As a result of the intervention, their technology skills advanced tremendously. The students involved with the intervention have reached a comfort level with technology far exceeding their peers who receive the bulk of computer technology instruction during their scheduled Computer Writing Class. The students in the intervention have become the leaders of technology in their classes. They have had the opportunity to work at greater lengths with the technology equipment and software programs thus have a greater knowledge of those resources. They are able to instruct their peers on the various resources and do instruct them effectively. They naturally incorporate the computer during the pre-writing, drafting, revising, and publishing stages of

the writing process. When given a writing assignment they want to complete the assignment using the computer because it is more efficient for them.

This researcher found the implementation to be worth the time and energy it took to institute. When trying to implement the intervention again, several issues would need to be addressed. These issues lie in time, managing a higher number of students, and technology .

First, time was a problem. For a Writer's Workshop to be most successful it should be employed in a homeroom class setting, not as part of a pull out program. The time slots are not reliable when in a pull out program. Relying on the schedules and curriculum of four teachers produced a disjointed time frame for Writer's Workshop. If the Writer's Workshop is part of a regular classroom curriculum the teacher has the ability to schedule it flexibly therefore the goal of writing two to three times per week for fifty minutes can be more easily achieved.

Second, a higher number of students would produce more management issues. Holding conferences, targeting mini-lesson needs, evaluating writing, and managing technical problems is manageable with a smaller numbers of students. Doubling that number, as would be necessary in a regular classroom setting would significantly cut down the time the teacher could conference with the students on their writing pieces. With the wider ability spread inherent in a regular classroom, the needs of mini-lessons would be greater. For example, with the targeted group in the intervention, the students were basically functioning at similar levels. They all had achieved basic writing skills such as paragraphing or proper sentence structure. These students easily learned the technology skills. However, in a heterogeneously grouped class, students' ability levels would run a wider gamete. Some may have mastered basic

writing skills, while others may have not yet attained the basic skills. These differences could potentially effect the time necessary for students to learn the technology skills. Facilitating the daily workshop routine takes more effort. The teacher has potentially more behavior issues, classroom space issues, and materials issues. Finally, conferencing with the students and evaluating the students' writing pieces would be a much greater task for the teacher.

Third, incorporating technology into the Writer's Workshop presents potential issues. The researcher had the luxury of having an entire computer lab of equipment for the students to use. They never had an issue of equipment shortage. The researcher did not have to deal with scheduling lab time. It was available to her at all times. If such equipment or access times do not exist the technology can be incorporated to a lesser degree. Even at a minimal level it is a motivational and an important writing tool. It is a critical component.

Although those would be greater challenges, they can be overcome in different ways. The teacher may need to give up more control than she may be accustomed to and delegate more responsibility to the students. For example, the teacher need not be present at every conference. The student to student conferences are extremely valuable experiences. The students need to exercise more independence when working, for the teacher will be engaged in helping other students or simply managing the workshop. The teacher may also seek the help of parent volunteers. Parents could help publish the books, be trained how to hold informal conferences, assist with the technology, and listen to the students sharing their work.

Overall this has been an outstanding experience for both the researcher and the students. It was incredible to see students enthusiastic about their writing and publishing quality pieces of work on a consistent basis. They

explored more types of writing then they would have been introduced to without the implementation. They also learned how technology makes writing and publishing more efficient. The students began the year as emerging writers and ended the year as young authors.

REFERENCES CITED

Allington, R. & Cunningham, P. (1994). Classrooms that work: They can all read and write. New York, NY: HarperCollins College Publishers.

Atwell, N. (1987). In the middle: Writing, reading, and learning with adolescents. Upper Montclair, NJ: Boynton/Cook.

Barnhart J. (1993). The reading- writing relationship: Empirical evidence for the reconceptualization of literacy. In J. Johns (Eds.) Literacy celebration and challenge. (pp. 57-62). Bloomingdale, IL: Illinois Reading Council.

Britsch, S. (1993). Experience and Literacy. Instructor. (103), 4, 48.

Calkins, L. (1986). The art of teaching writing. Portsmouth, NH: Heinemann.

Cooper, J. (1993). Literacy: Helping children construct meaning. Boston, MA: Hougton Mifflin Company.

Furnish, B. (1988). Write more, learn more: Writing across the curriculum. Bloomington, IN: Phi Delta Kappa.

Graves, D. (1994). Be a better writing teacher. Instructor. (104), 43-45.

Gregory, C. (1994). The tools you need for assessing creative writing. Instructor. (104), 52-54.

Gundlach, R. (1992). The place of computers in the teaching of writing. In A. M. Lesgold & F. Reif (Eds.) Computers in education realizing the potential. (pp. 173-187). Pennsylvania: U.S. Department of Education.

Illinois State Board of Education. (1994). *Write On Illinois, In Brief Performance Assessment Scoring Guides*. Brochure.

Jongsma, K.S. (1990). Intergenerational literacy. The Reading Teacher. (43) 7, 522.

Northeastern Illinois Planning Commission Research Services Department. (1992). 1990 census of population and housing (Summary Tape File 1). Wheeling, IL: Author.

Office of Educational Research and Improvement. (1991) Student achievement in core subjects of the school. (EDO Publication No. SO-91-2). Washington, DC: U.S. Government Printing Office.

Rhodes, L. & Shanklin, N. (1993). Windows into literacy: Assessing learners k-8. Portsmouth, NH: Heinemann.

Routman, R. (1991). Invitations: Changing as teachers and learners k-12. Portsmouth, NH: Heinemann.

Tchudi, S. (1991). Planning and assessing the curriculum in English language arts. Alexandria, VA: Book Press, Inc.

Wheeling Community Consolidated School District 21. (1993). 1994 school report card. Wheeling, IL: Author

Vockell, E. (1987). The computer and academic learning time. Clearing House. 72-75.

APPENDICES

Appendix A

Student Writing Prompt

Expository Writing Assignment

Think about all the people you know and pick one who you would like to be. Explain why you would like to be this person. This person could be one you know personally, or one that you know through reading, or studying about him or her.

Writing Assignment

Write a paper using the following guidelines:

- Choose a real person from present or past times.
- Identify the person.
- Give details about why you did choose this person.
- Do not use an imaginary person.

Check Points to Remember

- Take some time to plan your paper on scratch paper.
- Organize your ideas carefully. Remember what you know about paragraphs.
- Use language and information appropriate for the teachers who will read the paper.
- Check that you have correct sentences, punctuation, and spelling.

Appendix B

Teacher Observation Checklist

Name

Key:
+ skill mastered
• evidence of skill
- skill not attained
NA non applicable

Writing Checklist

Surface features:

Spelling			
Capitalization			
Punctuation			

Inner Layers:

Ideas in logical order			
Proper sentence structure			
Support statements have detail			
Equal detail in each paragraph			
Evidence of self-editing			
Main idea or theme carried through			
Closing paragraph			

Creativity:

Well chosen verbs			
Use of "empty" words			
Transition words are used			
Exhibits pride in ownership of writing			

Checklist adapted from, Gregory, C. (1994). The tools you need for assessing creative writing. Instructor, (104), 52-54.

Appendix C

Illinois Goal Assessment Program Guidelines

FEATURES	Absent 1	Developing 2	Developing 3	Developed 4	Fully Developed 5	Fully Developed 6
FOCUS Degree to which main idea, theme or point of view is clear and maintained.	Absent; unclear; insufficient writing to ascertain maintenance	Attempted; subject unclear or confusing; main point unclear or shifts; resembles brainstorming; insufficient writing to sustain view	Subject clear; position is not; underpromise overdeliver* overpromise underdeliver* offer two or more positions without unifying statement; abrupt ending	Bare bones position clear; main point(s) clear and maintained; prompt dependent; launch into support w/o preview	Position announced; points generally previewed; has a closing	All main points are specified and maintained; effective closing; narrative events clear importance, significance stated or inferred
SUPPORT Degree to which main point elements are elaborated and or explained by specific evidence and detailed reasons	No support; insufficient writing	Support attempted; ambiguous; confusing; unrelated; not sufficient writing	Some points elaborated, most general; some questionable; may be a list of related specifics; sufficiency?	Some second-order elaboration; some are general; sufficiency or not much depth	Most points elaborated by second-order or more	All major points elaborated with specific second-order support; balanced; evenness
ORGANIZATION Degree to which logical flow of ideas and text plan are clear and connected.	No plan; insufficient writing to ascertain maintenance	Attempted; plan can be inferred; no evidence of paragraphing; confusion; presents insufficient writing	Plan not/or/else inappropriate paragraphing; major digressions; sufficiency?	Plan is evident; minor digressions; some cohesion and coherence from relating to topic	Plan is clear; most points logically connected; coherence and cohesion demonstrated; most points appropriately paragraphed	All points logically connected and signaled with transitions and or other cohesive devices; all appropriately paragraphed; no digressions
CONVENTIONS Use of conventions of standard English.*	Many errors impair read; problems with sentence construction; insufficient writing to ascertain maintenance	Many major errors; confusion; insufficient writing	Some major errors; many minor; sentence construction below mastery	Minimally developed; few major errors; some minor, but meaning unimpaired; mastery of sentence construction	A few minor errors, but no more than one major error	No major errors; few or no minor errors
INTEGRATION Evaluation of the paper based on a global judgment of how effectively the paper as a whole uses basic features to address the assignment.	Rarely deals with topic; does not present most or all features; insufficient writing	Attempts to address assignment; some confusion or lack/weakness; insufficient writing	Partially developed; some or one feature not developed, but all present; reader inference required	Only the essentials present; paper is simple, informative, and clear	Developed paper; each feature evident, but not all equally developed	Fully developed paper; all features evident and equally well developed

* Usage, sentence construction, spelling, punctuation, capitalization, paragraph format

** For complete scoring rubric, see *Write On, Illinois!*, a publication of the Illinois State Board of Education

BEST COPY AVAILABLE

Appendix D

Data for Figure 1

Focus	Pretest
one	0
two	0
three	4
four	0
five	3
six	0

Figure 1. Pretest scores for Focus.

Appendix E

Data for Figure 2

Support	Pretest
one	0
two	1
three	3
four	1
five	2
six	0

Figure 2. Pretest scores for Support.

Appendix F

Data for Figure 3

Organization	Pretest
one	0
two	1
three	3
four	2
five	1
six	0

Figure 3. Pretest scores for Organization.

Appendix G

Data for Figure 4

Conventions	Pretest
one	1
two	6

Figure 4. Pretest scores for Conventions.

Appendix H

Data for Figure 5

Integration	Pretest
two	0
four	1
six	3
eight	3
ten	0
twelve	0

Figure 5. Pretest scores for Integration.

Appendix I

Student Writing Survey

Student Writing Survey

Name:
Date:

1. Are you a writer?
(If your answer is yes, answer question 2a. If your answer is NO, answer 2b.)

2a. How did you learn to write?

2b. How do people learn to write?

3. Why do people write?

4. What do you think a good writer needs to do in order to write well?

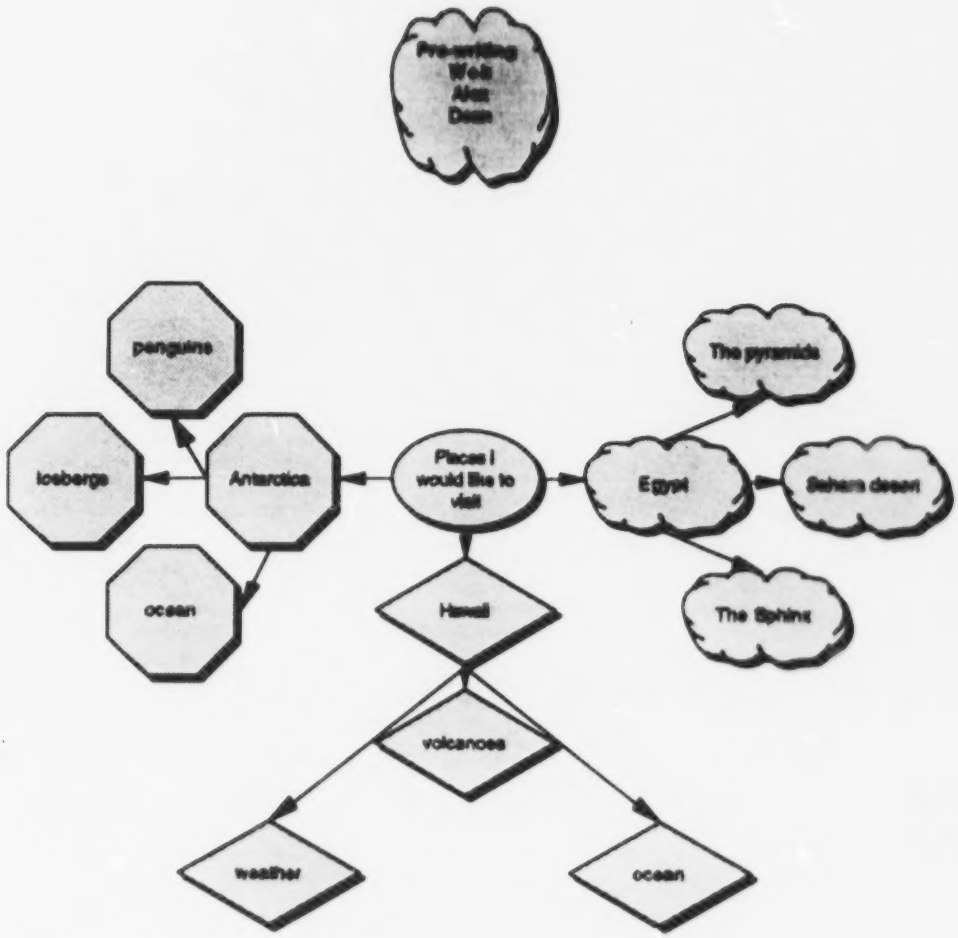
5. How does your teacher decide which pieces of writing are the good ones?

6. In general, how do you feel about what you write?

Survey adapted from, Atwell, N. (1987). In the middle: Writing, reading, and learning with adolescents. Upper Montclair, NJ: Boynton/Cook.

Appendix J

Student Portfolio Sample



- Name of author has been changed.

BEST COPY AVAILABLE

Appendix K

Student Portfolio Sample

Animals
by Tom Smith

A is for the many animals that are abused
N is for the decreasing number of animals
I is for iguanas, and other beautiful animals
M is for monkeys who live in the declining rain forest
A is for alligators and other reptiles that are being skinned
L is for leopards and other animals that are being killed for their fur
S is for saving animals

A is for amphibians like the frogs which are getting run over by cars
R is for rats which still have a giant population
E is for endangered animals

E is for the animals' environment which is being destroyed
N is for the neglect of animals
D is for dangerous chemicals that are being dumped into the ocean
A is for animals that have to adapt to new conditions due to humans
N is for narrow-minded people that kill animals
G is for the grazing land that is being turned into farmland
E is for the animals that will be gone for eternity if we don't save them
R is for the red blood that you can see when humans shoot sharks
E is for encouraging people to respect animals
D is for the delicate balance of nature

• Name of author has been changed.

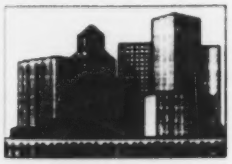
Appendix L

Student Portfolio Sample

Maria's Future

WRITER'S BLOCK
By: Shawna Shone

Maria List, now one of the most recognized faces in New York, is also, I might add, a very famous writer. It's the year 2010, and the future's books are more fascinating. With the new book codes you slip in the card and, POOF! You're sucked into the story!



Look for most of her books like Aliens Invaded My Body, How To Babysit Zorks, Live Action Roller Food, and, What Is The Use Of Presidents.

FELLOW FAMILY
By: Honey Love

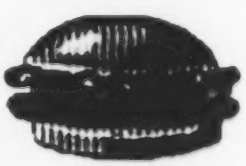
Maria is not only a writer, she is a loving mother and a caring wife. Her husband's name is Mike Gealoph and he likes to golf. He reads all of Maria's books and is a very wealthy man. He's very wealthy because he is a scientist. He has found cures for diabetes and every other disease.

Maria also has three daughters. Their names are: Sally, Sarah and Samantha. If you guessed they're triplets, you're right! Each girl is ten years old and they have their own T.V. show!

They all have brown hair and blue eyes, just like their mother! Sally is a Tomgirl, and hangs out with boys all the time. Sarah is very smart, and has an I.Q. of 500! Samantha always wears make-up, and won't part with the brush she always carries around.

ENTERTAINMENT
By: Brian Beedo

Maria does a lot more than writing for fun. Every Saturday no matter what, Maria and her family go to Intergalactic Bowling. Then they all go to Computer Cafe. When all her family is asleep, she reads very old adult books from the attic. She thinks they were from the people that used to live in her $10,996,783,455,667 1995 house. Of course, when one of her triplets has a birthday, they all go to Wisconsin for five light years. Since Maria's family is so busy, they never go much any place.



• **Name of author has been changed.**

Appendix M

Student Portfolio Sample

Creatures From Another World

By Tina Johnson

The story you are about to be told is a story that is not very old. I will tell you what happened on that horrible night when creatures from another planet appeared in the light. They crashed to Earth and gave the human race a shook of

- **Name of author has been changed.**

fright. For their planet was dying from cold , they needed a new planet to be their home. The human race was not one of their friends so they tried to send us to the end. [Of our lives that is]

They invaded our houses. They went in our closets and drawers and into pantries and they crawled through the floors. They invaded the fridge and ate all the food but not before they went into a mood and threw everything in the house out the door. They even threw out the rug on the floor. When the creatues from space saw a person in the human race they stuck them to the floor with paste. They ate their hair they crawled through their nose then I supose they ate them.

Soon N A S A. came and and made a mission to send the the creatures to outer space. But something went wrong and the creatures got out they invaded the space craft and they fell out. The creatures are still there up above with the stars just

hanging around with the martians on Mars

THE END

Appendix N

Data for Figure 6

Focus	Pretest	Posttest
one	0	0
two	0	0
three	4	0
four	0	2
five	3	4
six	0	1

Figure 6. Pretest and posttest scores for Focus.

Appendix O

Data for Figure 7

Support	Pretest	Posttest
one	0	0
two	1	0
three	3	0
four	1	3
five	2	4
six	0	0

Figure 7. Pretest and posttest scores for Support.

Appendix P

Data for Figure 8

Organization	Pretest	Posttest
one	0	0
two	1	0
three	3	0
four	2	4
five	1	3
six	0	0

Figure 8. Pretest and posttest scores for Organization.

Appendix Q

Data for Figure 9

Conventions	Pretest	Posttest
one	1	0
two	6	7

Figure 9. Pretest and posttest scores for Conventions.

Appendix R

Data for Figure 10

Integration	Pretest	Posttest
two	0	0
four	1	0
six	3	0
eight	3	2
ten	0	5
twelve	0	0

Figure 10. Pretest and posttest scores for Integration.